

Remarks

By the present amendment claims 16-22, 36-45, 48, 49, and 51-57 are withdrawn as being directed to a non-elected invention. Claim 9 has been cancelled and combined with the subject matter of claim 1. Claim 14 has been cancelled and combined with pending claim 13. Claims 4 and 27 are cancelled without prejudice or disclaimer and new claim 58 added. The claims remaining for consideration are 1-3, 5-8, 9-13, 15, 23 – 26, 28-35, 47, 50, and 58. Reconsideration of these claims is requested.

The Examiner's careful review of claims 23 – 35 is appreciated. The amendments to the claims have addressed the concerns expressed at page 3 of the office action regarding antecedent support for the claimed invention.

Claim 1 features a tape dispenser system for supporting a roll of tape having a liner, separating the tape from the liner and applying the tape to a glass sheet. The dispenser includes a frame; a tape spool rotatably mounted to said frame; and a drive roller rotatably mounted to said frame for controlling a length of the tape unwound from said tape spool. The tape dispenser also includes a platen having an angular front end portion that causes the liner to separate from such tape; and a rewind spool rotatably mounted to the frame. The tape spool, drive roller, platen and rewind spool define a path of travel from said tape spool, around said drive roller, around said front end portion of said platen, to said rewind spool. Claim 1 also features a gantry that supports and moves said frame relative to a surface of the glass sheet. An optical sensor coupled to said frame detects edges of such glass sheet. A controller coupled to the gantry and the sensor determines a sensed orientation of the glass sheet based on optical sensor outputs and moves the frame to apply the tape at a controlled angle based on said sensed orientation.

Claim 1 includes the features of cancelled claim 9 and specifically recites an optical sensor for use in conjunction with a controller to determine an orientation of a glass sheet. This feature is neither shown nor suggested by the prior art of record. The Dailey JR published application (US 2002/0170663 A1) recites a sensor 54 for detecting "the first two successive corners which are approached by the tap application head 10". The assumption is made by Dailery JR that the glass is oriented in a particular way so that its length is determinable from these two measurements. The structure of claim 1 makes no such assumption and instead determines an orientation of the glass sheet and lays down tape based on that determination. For

these reasons the structure of claim 1 is neither shown nor suggested by the relied upon combination of references and is allowable.

Claims 2, 3, 5 – 8, 10 and 11 depend from allowable claim 1 and are also allowable.

Claim 12 is amended and as amended is in independent form. This was claim was indicated as being allowable in the last office action.

Claim 13 features a tape dispenser for supporting a roll of tape having a liner, separating the tape from the liner and applying the tape to a glass surface. The dispenser includes a frame; a tape spool rotatably mounted to said frame by a slip clutch tensioner; and a drive roller rotatably mounted to said frame by a servo motor that includes a first sensor that measures a length of such tape that travels past said drive roller. A platen having an angular front end portion causes the tape to separate from such liner. A rewind spool is rotatably mounted to said frame by a motor and a second slip clutch tensioner. The tape spool, drive roller, platen and rewind spool define a path of travel from said tape spool, around said drive roller, around said front end portion of said platen, to said rewind spool. A die is connected to said frame located along said path of travel and being configured to score such tape. A pressure roller is mounted to said frame by an actuator, said pressure roller being configured to apply pressure to such tape as such tape is applied to such glass. A position sensor coupled to such pressure roller determines a distance between said dispenser and the glass surface when the roller contacts the tape and/or the glass surface; and an actuator moves the platen up and down relative the glass surface based on an output from the position sensor.

Neither the Kuhn et al nor the Erickson reference cited at page 10 of the office action show or suggest the recited feature of controlling the up/down position of the tape dispenser based on a distance between the dispenser and glass surface sensed by a position sensor featured in claim 13 and accordingly this claim is allowable.

Claim 15 depends from allowable claim 13 and is also allowable.

Claim 23 as amended features structure including an optical sensor mounted to a tape dispenser for detecting points along edges of a glass plate and a controller coupled to said gantry, to a dispenser actuator, and to the optical sensor. The controller determines a position and orientation of the glass plate based on a position of the points as sensed by said optical sensor and moves said tape dispenser based on said position and orientation with respect to such glass

plate. The arguments above for claim 1 are equally applicable to this claim since the Dailey JR reference neither shows nor suggests these features.

Claim 24 has been re-written in independent form and changed slightly to overcome the 35 USC 112 objections to the claim as filed and is allowable.

Dependent claims 25 – 35 depend from allowable claim 23 and are also allowable.

Claim 46 features a tape application system for applying a tape that creates the appearance of a bevel to a surface of a glass plate. The system includes a table for supporting the glass plate; a gantry mounted to said table such that said gantry is movable in a first direction along said table; and a dispenser actuator mounted to said table such that said dispenser actuator is movable in a second direction along the gantry.

A tape dispenser is mounted to said dispenser actuator such that movement of a linkage of said dispenser actuator causes the tape dispenser to move in a third direction that is normal to the glass plate. A pressure application wheel is mounted to the dispenser for linear movement with respect to said tape dispenser. The pressure application wheel engages the glass plate such that variations in thickness of said glass cause the pressure application wheel to move with respect to said tape dispenser. A position sensor is coupled to the pressure application wheel and the dispenser actuator. Movement of the pressure application wheel caused by contact between said pressure application wheel and said glass is sensed by the position sensor and communicated to said dispenser actuator to move said dispenser with respect to said glass plate.

Neither the Kuhn et al or the Erickson reference cited in the office action show or suggest the recited feature of controlling the position of a dispenser based on contact between a pressure application wheel and a glass plate. Claim 46 is accordingly allowable.

Claim 47 depends from allowable claim 46 and is allowable.

Claim 50 features a tape application system for applying a tape that creates the appearance of a bevel to a surface of a glass plate. The system includes a table for supporting the glass plate; a gantry mounted to the table such that the gantry is movable in a first direction along said table; and a dispenser actuator mounted to the table such that the dispenser actuator is movable in a second direction along said gantry.

A tape dispenser is mounted to said dispenser actuator for dispensing a tape onto said glass plate. An optical sensor is mounted to the dispenser actuator for sensing edges of said glass

plate. A controller is coupled to the optical sensor for determining an orientation of the edges of said glass plate. The controller is further coupled to the gantry and the dispenser actuator for positioning and orienting said dispenser for movement with respect to such glass plate based on the orientation.

The Dailey Jr. published application neither shows nor suggests this structure and claim 50 is allowable.

New claim 58 recites among other features a rewind spool rotatably mounted to a frame by a rewind motor and a slip clutch tensioner and a controller for coordinating actuation of a chad remover, a servo motor to dispense tape and the rewind motor. The controller stops movement of the tape by de-activating the servo motor to stop tape movement and then brings the chad remover into contact with the tape while maintaining operation of the rewind motor to maintain tension in the tape as the chad is removed. This feature of the invention is neither shown nor suggested in the prior art of record and accordingly claim 58 is allowable.

All claims pending in the application are in condition for allowance and a prompt notice of allowance is solicited.

Respectfully submitted,



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